U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-038-EA

CASEFILE/PROJECT NUMBER (optional): Charge code = CO 110 2881 DD PGMT

PROJECT NAME: **WRFO Normal Year Fire Rehabilitation Plan**

LEGAL DESCRIPTION: Entire White River Field Office (WRFO)

APPLICANT: USDI- BLM

ISSUES AND CONCERNS (optional): None

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: BLM Manual 1742 prescribes preparation of Normal Year Fire Rehabilitation plans for Field/ District offices to obviate the need for preparation of individual Emergency Fire Restoration/Rehabilitation Plans for wildfires which cause significant resource damage. Such wildfires would fall within the parameters of what are "Normal Fire Year Events". That is, in White River Resource Area, based on historic records, we can reasonably expect that in a 'Normal' year, 5684 acres of pinyon-juniper woodland, Wyoming big sagebrush, basin big sagebrush and mountain big sagebrush/mountain browse collectively, will burn. This predictive information has been derived from the White River Fire Management Plan (EA CO-017-WR-99-099-EA) and information collected since that time and will be discussed under *Fire Management, Fire History.*

Proposed Action: The proposed action is prescription of eight (8) emergency fire restoration/rehabilitation treatments which could be implemented to mitigate post fire negative impacts on burned areas throughout the White River Resource Area. Generally, the purpose of these treatments would be to:

1. Protect life, property, soil, water (including water-dependent resources) and/or vegetation resources.

2. Prevent unacceptable on-site or off-site damage.

3. Facilitate meeting land use plan objectives in conformance with land use plan decisions (per the Federal Land Management Policy and Management Act of 1976) and other applicable federal laws.

4. Stabilize and protect known cultural resources from possible further post-fire degradation, and from restoration activities.

5. Reduce the establishment of noxious or invasive plant species.

6. Assist in meeting or maintaining Colorado Standards for Rangeland Health.

7. Repair or replace BLM minor facilities or structures destroyed or damaged by fire.

Proposed treatments:

1. Revegetation - Revegetation measures would include broadcast aerial seeding, rangeland drill seeding, ground broadcast seeding followed by harrowing, and hand planting of trees and /or shrubs. Most of this work would be accomplished by contract, although in some cases, Force Account or the WRFO fire crew may complete rangeland drill seeding and broadcast seeding. Typically, aerial, drill and broadcast seeding would be done in the late fall prior to prolonged winter snowfall. In most cases, the seed of native plant species would be used for revegetation. The Native Seed mixtures would be those prescribed by the White River Record of Decision/Resource Management Plan (ROD/RMP). These mixtures are correlated by ecological site and are listed in Appendix A. Additional native species may be added to these mixtures as they become commercially available. Modifications in these mixtures may be made- e.g., the addition of forb and browse species, in order to meet wildlife habitat objectives. As described in the White River ROD/RMP p. 2-11, "naturalized plant species will be used for revegetation of 'at risk' and 'unhealthy' rangelands and grazeable woodlands." All seed used for fire restoration/rehabilitation will be tested and will meet the standards established in the Colorado Seed Quality Policy, IM # CO-91-6.

2. Construction of check dams, reservoirs and waterbars for erosion and sediment control- Construction of erosion or sediment control structures could be necessary on burned areas where erosion and runoff potential are high. These may include, but are not limited to, areas with hydrophobic soils, highly erosive soils, steep slopes, and areas where stream channels cannot adequately transport an increased bedload. Earthen structures such as small pits and reservoirs and check dams as well as, in-channel structures using straw bales, wattles, and pinyon and juniper tree trunk and branches will be utilized to prevent offsite movement of sediment prior to successful revegetation. These structures would not be intended to hold water for anything but a few days. Pits and reservoirs will typically be 500 cu yards or less and will be constructed high in the affected watersheds. These structures will be built using a crawler tractor by contract or by the Force Account crew. No new access roads will be constructed.

3. Noxious/ invasive species eradication/control- These treatments would be of two general types, a) prior to revegetation, and, b) during and after revegetation.

    a) The principal pre-revegetation treatment would be broadcast application of a herbicide such as Oust or Plateau to suppress cheatgrass germination and thus, competition, prior to seeding with a rangeland drill. The use of Oust for such treatment on public lands was previously analyzed and approved in the Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States, 1991, and is approved for use on Colorado rangeland by the Colorado Department of Agriculture. However, due to misapplication in Idaho, BLM has suspended its use. Use of Plateau (Imazypic) for suppression of cheatgrass is currently being analyzed in BLM's Draft *Vegetation Treatment on BLM Lands in Thirteen Western States EIS.* Use of any herbicide for cheatgrass suppression would have been previously analyzed and approved in a Pesticide Use Proposal and would be tiered to the current Vegetation Treatment on BLM Lands in Thirteen Western States EIS.

    b) The principal post- revegetation treatment would be herbicidal spot, ground or aerial application to eradicate noxious/problem weeds during and after revegetation to prevent their long term establishment/proliferation in the affected burn area. Noxious/problem weeds which typically occur in our burned areas include Russian, spotted and diffuse knapweeds, musk, Canada and bull thistles, leafy spurge, yellow toadflax and houndstongue. Use of any herbicide for noxious weed suppression would have been previously analyzed and approved in a Pesticide Use Proposal and would be tiered to the current Vegetation Treatment on BLM Lands in Thirteen Western States EIS.

4. Dozer Line Repair- Unrehabilitated or poorly rehabilitated bulldozer lines constructed during fire suppression efforts can be subject to soil erosion and invasion by noxious weeds and cheatgrass. Treatments to minimize erosion and prevent weed establishment and proliferation would normally include recontouring of dozer lines by pulling bladed materials back over the lines and waterbarring. Trees may be placed on the line to prevent vehicular travel. Seeding would often be necessary after recontouring and would be completed by drill seeding using a rangeland drill, or broadcast seeding using a helicopter, ATV, pickup, or by hand. Seeding would serve as an immediate, temporary ground cover to decrease surface erosion and help prevent invasion of noxious weeds and cheatgrass. Seed mixtures specific to the appropriate ecological site would be used to insure successful rehabilitation.

5. Road Repair- Rehabilitation of existing roads damaged during fire suppression could be necessary to avoid formation of erosion gullies or ponding of water on road surfaces due to blockage of drainage diversions. Damaged roads would often require wetting and regrading. Road repair is not intended to improve damaged roads beyond pre-existing conditions, but to reestablish drainage and surface requirements for public safety. Many roads provide primary access for private property owners, allotment permittees, recreational users, and the public at large.

6. Measures Necessary to Insure Revegetation Success- Successful revegetation of burned areas, whether they are expected to regenerate naturally or have been seeded, is very dependent upon control of large herbivore grazing during the initial establishment period. The most controllable grazing use is usually that made by livestock. Typically, two full years of deferment from livestock use are necessary for successful wildland revegetation. Three primary methods of livestock control will be utilized to insure successful revegetation in WRFO resource area.

    a) Reconstruction of existing fences- existing fences, if they are rebuilt to a functional condition, may provide sufficient control of livestock to protect a revegetating burn.

    b) New fences- new fences may be constructed to prevent livestock/wild horse use of a burned revegetating area, while allowing livestock/wild horse use of the rest of the pasture/allotment.

    c) If a burn is sufficiently large and/or other protective measures are not feasible, an entire pasture or allotment may be protected with a livestock closure (43 CFR 4110.3-3)

7. The fences constructed may be either high tensile steel or barbwire and will be constructed under contract. All fences will be built to BLM specifications.

8. Cultural resource site stabilization and protection- Under this treatment, cultural resources damaged by fire or fire suppression efforts or which could be damaged by post-fire activities, would be assessed for damage and measures taken as needed to stabilize or mitigate the damage. In cases where cultural resources in an area have been previously recorded, the immediate need could be to assess damage to these resources from fire or fire suppression. In other cases, when no previous inventories have been completed, the first task could be to survey the area in question. In this case, damage assessment would be included as part of the survey. All work could either be undertaken by in-house staff or, depending on the scope of work required, under contract by permitted archaeological consulting firms.

    Proposed cultural resource mitigation measures would be dependent on the types of resources known or thought to be present, and the nature of the impacts. For instance, a thorough recordation of the remains, plus limited archival research, could be needed if historic structures burned. If rock walls were incorporated into a significant burned structure, stabilization of the walls could be necessary to prevent them from collapsing. Dozer lines would often need to be inventoried to assess the damage done to archaeological resources and historic trails. Mitigation measures for these resources could range from simple recordation to data recovery. Fieldwork may be undertaken by in-house staff or performed by permitted archaeological consulting firms under contract, depending on the scope or work to be done. Damaged roads could be reshaped using hand tools. Secondary impacts that result from wildfire could include illegal collecting of

exposed artifacts, erosion, and the consequences of off-road travel during burned firewood gathering. In these cases, inventory of areas having high cultural resource sensitivity could be necessary to determine the types of resources present. Mitigation measures could include extra law enforcement patrols until vegetation is re-established and closures of some areas to wood gathering.

Normal Fire Rehabilitation Plan Supplement

A Normal Fire Rehabilitation Plan (NFRP) supplement would be prepared for each fire that would be treated under this plan. The NFRP supplement (Appendix B) describes the site-specific rehabilitation actions to be taken, additional input and analysis, including public input, and requires the Decision Record and Rationale documentation to complete the process. The Supplement relies on the EA prepared for the NFRP to support a Determination of NEPA Adequacy (DNA), which is prepared as a part of the Decision Record. Washington Office IM 2001-062 contains guidance for completing the DNA form. If a DNA cannot be completed because the NFRP environmental assessment (EA) did not adequately analyze the actions proposed in the Supplement, a new EA is required to analyze the actions not covered in the NFRP EA.

No Action Alternative: The No Action alternative would entail not completing this plan/environmental assessment and thus, having to prepare individual Emergency Fire Rehabilitation/Restoration Plans/Environmental Assessments (EFR) for all fire events that have or have potential to cause significant negative resource impacts.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: Completion of this plan would enable WRFO to process and implement most Emergency Fire Rehabilitation Plans more quickly and with less paperwork over the long term, enhancing work efficiency and resulting in positive environmental impacts on Public Lands in White River Resource Area.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP). White River Fire Management Plan (6/99).

Date Approved: July 1, 1997

Decision Number/Page: P 2-10

Decision Language: Maintain healthy, diverse and sustainable rangeland and woodland plant communities.

This document is tiered to and incorporates by reference all pertinent information in the White River Fire Management Plan (6/99) (CO-017-WR-99-099-EA).

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The climate of northwestern Colorado can generally be classified as a semi-arid, continental climate regime with a warm semi-desert climate regime near the Utah state line. The project corridor is characterized by low precipitation, dry air, abundant sunshine, and large diurnal temperature ranges. Because of the surrounding mountains, low pressure storms tend to pass around the region, whereas high-pressure cells stagnate, blocked by the Rocky Mountains, resulting in moderate temperature and abundant sunshine. The region's complex topography causes considerable variations in site-specific temperature, precipitation, and winds, but these influences are more in the valleys than the plateaus.

Temperatures vary mostly with elevation, and to a lesser extent, local microclimate. Annual precipitation is highly variable and appears to be a function of elevation, increasing about 0.15-inch for every 100-foot increase in elevation (In Situ, Inc. 1984). The table below presents a summary of temperature and precipitation for the resource area, as recorded at Meeker, Little Hills, Rangely, Maybell and Dinosaur National Monument, Colorado for their period of record. January temperatures range from daily minimums in the single digits and teens to daily maximums in the low to mid-30s. Daily minimum temperatures in July range from the mid-40s to mid-60s, while daily maximums average in the high 80s to low 90s. A high frequency of clear skies and low relative humidity in the region provides for rapid nighttime cooling. The average diurnal range between maximum and minimum temperatures is from 25 to 40° F. Average annual precipitation ranges from 9 to 18 inches in the project area. Snowfall across the project ranges from 26 to 84 inches, with more snow falling in higher elevations. The late summer and winter months tend to receive the majority of the precipitation from late summer thunderstorms and winter frontal storms associated with easterly movement of Pacific Ocean storms

Temperature and Precipitation Data

Locality	January Mean Temperature (° F)	July Mean Temperature (° F)	Annual Precipitation (inches)
Meeker	21.6	59.8	16.4
Little Hills	20.22	65.3	13.8
Rangely	17.6	73.7	9.97
Maybell	17.2	67.0.0	12.2
Dinosaur NM	21.5	73.6	11.6

Source: Western Regional Climate Center 2005

The average relative humidity in mid-afternoon is less than 33 percent in spring and about 44 percent the rest of the year. The sun shines 77 percent of the time in the summer and 61 percent in the winter (SCS 1982 and 1985 and NRCS 2003). Data collected from the Cb Tract in 1984 indicates that the prevailing wind is from the south-southwest, but surface wind patterns are usually dependent upon local terrain and ground cover. Synoptic (high or low-pressure gradient) winds may be forced around hills or channeled through valleys, but if there are no strong gradient flows, diurnal upslope/downslope winds may predominate.

The ambient air quality in the United States is protected by the Clean Air Act (CAA) and its amendments as well as other federal, state, and local regulations. The Environmental Protection Agency (EPA) has developed National Ambient Air Quality Standards (NAAQS) for certain criteria pollutants. These criteria pollutants are nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 or 2.5 microns in diameter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), ozone (O_3), and lead (Pb). Colorado has adopted the NAAQS with a modification for SO_2. These Ambient Air Quality Standards were established to protect public health (primary standards) and public welfare (secondary standards).

Areas in which the ambient pollutant concentrations are measured or are believed to be below the NAAQS are classified as attainment or unclassified. Areas in which ambient pollutant concentrations are above the NAAQS are classified as non-attainment. To preserve existing air quality in areas where pollutant levels are below the NAAQS and to protect areas classified as attainment or unclassified, the EPA established Prevention of Significant Deterioration (PSD) regulations through the CAA Amendments of 1977. Under the PSD regulations, areas in the United States are classified into three classes (Class I, Class II, and Class III) based on the additional amounts of NO_2, SO_2, and PM_{10} degradation that would be allowed. PSD Class I areas are public lands such as wilderness areas, national parks, and memorial parks established prior to 1977 that have special protection under the CAA and have the greatest limitations as nearly any degradation would be significant. Areas where moderate, controlled growth can take place are designated as PSD Class II areas. PSD Class III areas are areas in which deterioration is acceptable as long as NAAQS are maintained; however, no PSD Class III areas have been established to date.

The project area is located within the Western Slope Colorado Air Quality Control Region in Colorado. The region has been designated as either attainment or unclassified for all pollutants and has further been designated Class II with regard to prevention of significant deterioration. The Flat Tops Wilderness Area is the nearest Class I area, and is located approximately 25 miles west of the town of Meeker.

Air quality in the project area is typical of undeveloped regions in the western United States. The primary sources of air pollutants in the region are from unpaved roads and streets; seasonal sanding for winter travel, motor vehicles, and wood burning stove emissions. In recent years, air pollution and impacts from energy development, including direct emissions, support services, and associated growth, have become concerns in the region. The major regional sources of regulated air pollutants include coal-fired power plants near Craig, Hayden, and Palisade, Colorado and various natural gas compressor stations in the Piceance Basin of Rio Blanco and Garfield Counties, Colorado. The ambient pollutant levels are usually near or below measurable limits, except for high short-term increases in PM_{10} levels (primarily wind-blown dust), ozone, and carbon monoxide. Within the Rocky Mountain region, occasional peak ozone levels are relatively high, but are of unknown origin. Elevated concentrations may be the result of long-range transport from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons. Occasional peak concentrations of CO and SO_2 may be found in the immediate vicinity of combustion equipment. Locations vulnerable to decreasing air quality include the immediate areas around mining and farm tilling, local population centers, and distant areas affected by long-range transportation of pollutants. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable standards

Environmental Consequences of the Proposed Action: The following proposed treatments; construction of check dams, reservoirs and waterbars for erosion and sediment control; dozer line repair and road repair would all generate dust during implementation, and motor vehicles used to transport personnel and equipment would emit particulate matter and exhaust gasses into the local atmosphere. In all cases, these impacts would be negligible, localized and short-term.

Revegetation and noxious/ invasive species eradication/control would increase wind blown dust during the implementation phase of preparing seedbed, applying seed if drilling or broadcasting and motorized application of herbicides. Although motor vehicles and equipment associated with drilling would emit exhaust gases and disturb soils surfaces, effects would be localized and short-term. Particulate matter emissions would be reduced upon completion of the treatment. Minimal dust would be created during broadcast seeding and weed spraying since these methods are usually conducted using ATV's or on foot. Regardless of seeding or weed eradication method, the treatment will aid in the establishment of a desirable groundcover needed to reduce the potential for future wind blown dust.

Environmental Consequences of the No Action Alternative: There would be little to no difference between the proposed and the no action alternative in regard to air quality impacts. The primary negative impact would be the environmental assessment requirement on a per fire basis. This per fire assessment could result in time delays and lost opportunities for

implementing an emergency or stabilization treatment plan and as a result, contribute to increased air borne particulates.

Mitigation: No additional mitigation is necessary.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: Fifteen Areas of Critical Environmental Concern (ACECs) exist in the resource area. Each is assigned base surface use stipulations (no surface occupancy and controlled surface use) to protect resources of concern for which the ACEC was designated.

Environmental Consequences of the Proposed Action: Surface disturbing activities within ACECs related to fire suppression activities are often more detrimental to the resources of concern for which the ACEC was designated than direct involvement by fire. Limited use of these treatments would preserve the integrity of the systems found within identified ACECs.

Environmental Consequences of the No Action Alternative: None

Mitigation: The Normal Fire Rehabilitation Plan Supplement that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved ACEC objectives (e.g., locally gathered native species).

CULTURAL RESOURCES

Affected Environment: Cultural resources in the WRFO area are known to run the gamut. Common are isolated finds of prehistoric or historic artifacts to rock art of various ages to artifact scatters to structural remains of prehistoric, proto-historic or historic age. Remains may be either surface remains or buried manifestations of cultural activity. Remains may be perishable, such as log cabins, brush fences or wickiups or relatively durable such as stone artifacts. However, even relatively durable materials such as stone artifacts may not be impervious to certain heat and residence time limits that may influence which artifacts are or are not likely to be impacted by a fire.

Environmental Consequences of the Proposed Action: The proposed action may impact both known and unknown cultural resources. If drill seeding or pond construction or dozer line rehabilitation occurs in areas where experience suggests there is a high potential for sites, even though there is no current inventory data to support the position, there is a high potential to impact sites, especially previously un-recorded sites. Other areas may have a low potential for site presence due to factors such as aspect or elevation or distance from water in which case there is significantly less likelihood to impact known or unknown sites.

Stabilization efforts to control erosion or stabilize known resources would be a long term beneficial impact as it limits or reduces the loss of the resources and the scientific data that they contain.

Arial or hand seeding does not represent a direct adverse impact potential to sites. But, aerial or hand seeding can be effective in controlling erosion potential and be considered a beneficial impact on sites as it may prevent erosion of site contexts or burial of sites by sediment.

Environmental Consequences of the No Action Alternative: Under the no action alternative cultural resources would have to be addressed on a fire by fire rehabilitation plan basis. There is a greater likelihood that resources could be overlooked during the analysis depending on the work load of the persons preparing the rehabilitation plan. If resources are inadvertently overlooked there is a high probability for resources to be lost to erosion or mechanized stabilization activities such as seed drilling or mechanized re-contouring of fire lines or rehabilitation of previously un-inventoried road segments.

Mitigation: In those areas where archaeological assessments are carried out the mitigation is already built into the proposed action. Additional mitigation will be determined based on the field assessments.

In areas where field assessments are not part of the initial plan, the following mitigation will apply:

1. The operator (BLM or its contractor) is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization (BLM or its contractor) must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and

protect it for 30 days or until notified to proceed by the authorized officer.

NOXIOUS WEEDS, INVASIVE, NON-NATIVE SPECIES

Affected Environment: The principal noxious weeds with potential to establish/ proliferate in burned areas likely for rehabilitation treatment are Russian, spotted and diffuse knapweed, Canada, musk and bull thistle, mullein and leafy spurge. These species occur in and are well adapted to the pinyon-juniper, big sagebrush vegetation type/precipitation range. This same type/zone is also the area that is most suited for establishment of the invasive alien cheatgrass (*Bromus tectorum*).

Environmental Consequences of the Proposed Action: Aggressive rehabilitation including revegetation followed by onsite monitoring to detect noxious weed establishment will prevent long term establishment of noxious weeds on rehabilitated burned areas. The establishment of desirable vegetation through seeding and /or protection of the burned area to allow for natural regeneration will typically provide sufficient competitive plant cover to prevent noxious/invasive plant proliferation. In general, rehabilitation practices such as those proposed in this plan which promotes maximum vigor/ plant production will result in a plant community which is more resilient and resistant to noxious weed/cheatgrass invasion.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation, although a delay in completing and thus, implementing a fire rehabilitation plan, could present an increased opportunity for noxious weed/cheatgrass invasion.

Mitigation: Post rehabilitation monitoring for a minimum of three to five years followed by eradication if noxious weeds are detected.

MIGRATORY BIRDS

Affected Environment: In early post-burn years, nesting substrate for migratory birds would be very limited and confined to standing and downed snags (e.g., hairy woodpecker, mountain bluebird, house wren) and relatively sparse herbaceous ground cover (e.g., lark and vesper sparrow, western meadowlark). Over the course of restoration work, there is likely to be no birds inhabiting the burn identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program. A number of high interest migratory birds that previously inhabited burned pinyon-juniper communities (e.g., black-throated gray warbler, gray flycatcher) will not begin to colonize these sites for many decades. Shrubland species with high conservation interest (i.e., Brewer's sparrow and green-tailed towhee) would be expected to recolonize these burned lands in 15-50 years as deciduous shrubs and sagebrush redevelop sufficient canopies.

Environmental Consequences of the Proposed Action: Virtually all fire rehabilitation measures are implemented immediately after the burn or prior to the first subsequent growing

season--timeframes when migratory birds are not engaged in reproductive activities on affected lands. The proposed action would have virtually no influence on migratory bird breeding efforts.

Environmental Consequences of the No Action Alternative: Although the no action alternative would generally involve similar treatment of burned acreage, unforeseen delays in developing necessary NEPA documentation would be expected to occasionally require that certain rehabilitation practices (e.g., erosion control structures, road abandonments) would be occasionally implemented the following spring and summer. Although these measures would be implemented during the migratory bird nesting season, very few nesting attempts would ever be subject to disturbance levels causing nest failure and it would be very unlikely that any species of high conservation interest would be involved.

Mitigation: None.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: A number of federally threatened and endangered animals and BLM-sensitive animals inhabit the Resource Area.

The White River and its 100-year floodplain below Rio Blanco Lake are designated critical habitat for Colorado pike-minnow. The entire Resource Area is associated with the Upper Colorado River Basin that supports the remaining complement of threatened and endangered Colorado River fishes, including razorback sucker, humpback chub, and bonytail.

Reintroduced populations of black-footed ferret and other special status species (i.e., ferruginous hawk, burrowing owl) associated with white-tailed prairie dogs (another BLM sensitive species) occur in salt-desert communities along the lower White River corridor. Although these habitats are somewhat more prone to fire where annual weeds have become entrenched, the fire recurrence interval in these types remains long. Habitat preferences for the keystone species, white-tailed prairie dogs, are positively correlated with declining shrub density and would be expected, along with species associated with them, to benefit from periodic successional setback from fire.

Seasonal bald eagle nesting and winter roost functions are fulfilled almost entirely by cottonwood gallery forests along the White River. Although these woodlands are not characteristically susceptible to fire, a number of stands have burned during recent episodes of drought.

This Resource Area is only peripherally involved with the higher elevation forested lands comprising Canada lynx habitat. BLM parcels are typically small and scattered within a larger matrix of private and U.S. Forest Service holdings and cannot be considered influential in the context of fire management.

An array of wildlife species have been identified for special management consideration as BLM sensitive species. Aquatic habitat associated with the White River and its tributaries are occupied by a number of BLM sensitive fish and amphibians, including: northern leopard frog and bluehead, flannelmouthed, and mountain suckers, roundtail chub, and Colorado River cutthroat trout. Mature and over-mature pinyon-juniper woodlands are thought to serve limited roosting functions for Townsend's big-eared bat and the Yuma and fringed myotis bats. Mature woodlands, including aspen and Douglas-fir forests are occupied sparingly by nesting northern goshawk.

The greater sage grouse inhabits sage-steppe habitats found throughout the Resource Area. The historic role of fire in these communities has been altered by grazing and fire suppression practices such that much of this type is in advanced successional status (e.g., poor herbaceous understory development, excessive conifer and deciduous shrub expression). Where understory conditions are compromised, timely augmentation of perennial herbaceous ground cover is imperative to suppress the proliferation of exotic annual weeds that tend to dominate and retard successional processes that allow for the progressive redevelopment of woody sagebrush canopies. Optimal forage and cover conditions for sage-grouse nest and brood-rearing functions are represented by mountain and Wyoming big sagebrush communities that possess well developed bunchgrass and forb understories.

Environmental Consequences of the Proposed Action: Although a large number of special status species are potentially involved with direct fire effects in this Resource Area, emergency rehabilitation activities would have little to no adverse consequence on special status species or their associated habitats.

Because suitable foraging and reproductive substrate for species associated with mature woodlands (e.g., Canada lynx, northern goshawk, bats, bald eagle) would remain unavailable for 80 (cottonwoods, aspen) to 200 years or more (conifers), rehabilitation activity within a burn would have no conceivable influence on breeding activity or habitat potentially occupied by these species in the near term. Rehabilitation measures would, by helping to hold soils in place and deterring the establishment of weedy exotics and gullying events, maintain site productivity and the successional processes that are necessary for the redevelopment of well-structured woodland habitats. Similarly, rehabilitation applied to at-risk sagebrush-steppe or saltbush desert communities occupied by sage-grouse or prairie dog associates would not only provide for sustained site productivity, but would help reestablish native forms of herbaceous vegetation relied upon by these species for supplemental nest and brood cover (grouse) or forage (prairie dog associates and grouse).

Aquatic habitats are prone to short or long term sediment loads originating from fires in contributing watersheds (see also Aquatic Habitat section below). Contributed sediments that exceed the capacity of that system to efficiently transport such material can result in excessive deposition and channel adjustments that can, for example, smother gravel spawning substrate for fish, or prompt lateral stream movements that accelerate bank erosion or initiate headcut formation. Prompt reclamation of burn-damaged or at-risk sites within burns would reduce the duration and volume of contributed sediments and minimize adverse channel modifications and deterioration of associated aquatic habitats (e.g., fish, amphibians). Any water developments

that result in depletions from the Upper Colorado River system are considered deleterious and likely to adversely affect Colorado pike-minnow and other listed Colorado River fishes. The impact of small water depletions associated with land management activities continues to be reported and mitigated by BLM via annual monetary contributions to the U.S. Fish and Wildlife Service as agreed to through the Amended Programmatic Biological Opinion for Minor Water Depletions in the Upper Colorado River Basin.

Environmental Consequences of the No Action Alternative: Failure to take remedial actions that promote soil stability and reduce the risk of weedy annual establishment may not only degrade short term redevelopment of perennial grasses and forbs as ground cover, but prolong or disrupt long-term successional processes--ultimately reducing the availability of suitable woodland cover and/or degrading water and channel conditions for special status fish.

Mitigation: The Normal Fire Rehabilitation Plan Supplements that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved habitat objectives (e.g., alternate seed, livestock management, or protective fencing recommendations).

Finding on the Public Land Health Standard for Threatened & Endangered species: The landscapes encompassed by this Resource Area generally meet the land health standards for special status species discussed above. There are no special status animals or associated habitats that would be adversely influenced by the proposed action. Similarly, because the proposed action would help maintain offsite habitat character (e.g., downstream aquatic habitat conditions) and would not detract from the status of land health standards in off-site habitats, the proposed action is consistent with continued overall achievement of the standard. As described in the no-action alternative, there is some risk of accumulating acreage that fails to meet the standard in the long term by delaying the application of remedial rehabilitation measures.

THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES (includes a finding on Standard 4)

Affected Environment: Nearly all the special status plant species, in the resource area, occur on barren land habitats, which are commonly devoid of any significant amounts of vegetation. Their habitats are usually natural barriers to fire and as a result, would not be impacted by the natural fire occurrences. None of the special status plants or habitats is known to be extirpated from larger fires maintained as a result of historic fire suppression efforts or treatments. Nor does fire create or expand habitats for these species.

Environmental Consequences of the Proposed Action: The treatments should have no impacts to Threatened, Endangered, and Sensitive (TES) plant species habitat because the areas where they inhabit are naturally void of competing vegetation and would most likely not support reseedings. Threats to entire populations of these plants are not likely.

Environmental Consequences of the No Action Alternative: If left unattended, site-specific habitats could become degraded resulting in long-term declines in genetic diversity.

Mitigation: The Fire Rehabilitation Plan (Supplement) that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved habitat objectives.

Finding on the Public Land Health Standard for Threatened & Endangered species: There is no reasonable likelihood that the proposed action would have an influence on the condition or function of TEP plant species. Thus there would be no effect on achieving the land health standard.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface water: The resource area lies within the Green River Basin, a tributary to the Colorado River. The major tributaries within the resource area to the Green River are the White and Yampa Rivers. The White River originates in the White River Plateau and flows west to its confluence with the Green River in Utah. The river basin is approximately 107 miles long and averages 35 miles wide with a total land area of 3,680 square miles. Approximately 88 percent of the resource area contributes flow to the White River.

Perennial and intermittent drainages in the WRFO area include Piceance Creek, Yellow Creek, Crooked Wash, Red Wash, East and West Douglas Creeks, Douglas Creek, Texas Creek, Missouri Creek and Evacuation Creek all of which flow into the White River; Parachute Creek which flows into the Colorado River. Peak runoff is a result of spring (April through May) snowmelt and extreme late summer thunderstorms. Tributaries to these drainages are ephemeral and flow only in direct response to snowmelt and intense summer storms. Channels are often deeply incised with steep banks that slough and develop new head cuts perpendicular to the main

stem. Sediment yield in local streams can be high due to runoff from localized thunderstorms in the summer and fall, which could affect water quality by increasing sediment and salt yields and accelerating erosion.

Surface water within the project area is described as mixed bicarbonate in the upper drainages and as sodium bicarbonate in the lower drainages. Chemical components found in surface waters are attributed to the weathering of surficial materials in the area. The principal ionic constituents include sodium, calcium, magnesium, bicarbonate, sulfate, chloride, potassium, and fluoride (Tobin 1987). Sodium, bicarbonate, and sulfate levels generally decrease during the spring snowmelt runoff because of the increased amount of water, while chloride and fluoride remain essentially constant. Calcium and magnesium concentrations show small decreases, and potassium increases during the snowmelt. During the irrigation season, sodium becomes concentrated, and calcium and magnesium concentrations increase. In late summer and fall, base flows are primarily a result of ground water discharge. Typically, groundwater contributes 80 percent of base flows to the drainages of Piceance Basin (Tobin 1987).

Water quality standards and guidance for drainages within the Lower Colorado River Basin are included in the CDPHE Water Quality Control Commission (WQCC) Regulation No. 37, which are the Classifications and Numeric Standards for the Lower Colorado River Basin. Although much of Evacuation Creek is in Colorado, it joins the White River in Utah, where the Utah Water Quality Assessment Report to Congress 2002 applies. In addition, the Status of Water Quality in Colorado – 2004, Colorado Monitoring and Evaluation List, Colorado 303(d) List of Impaired Waters and Utah 303(d) Lists of Impaired Waters were reviewed for information related to the project area.

The States of Colorado and Utah have adopted basic standards and antidegradation rules for surface waters. These standards define waterbodies with four different categories of classified uses: aquatic life, water supply, recreation, and agriculture; designate uses for each waterbody; and adopt numeric or narrative water quality standards to protect those classified uses. In Colorado, the classified uses for surface water are Aquatic Life Cold, Class 1 or 2; Aquatic Life Warm, Class 1 or 2; Recreation Class 1 (1a or 1b) or 2; Domestic Water Supply; Agriculture; and Wetland. In Utah, the classified uses for surface water are Domestic, Class 1 or 1C; Recreation and Aesthetics, Class 2A or 2B; Aquatic Life Use Support, Class 3A, 3B, 3C, 3D, or 3E; and Agricultural, Class 4.

The U.S. Geological Survey (USGS) has collected surface water quantity and quality data for several gaging stations periodically since 1964 on the White River, major tributaries, and several ephemeral drainages in the Piceance Basin. Sediment yield data, which is the primary pollutant in the area is presented in the below table for major tributaries to the White River (USGS 2005d).

Sediment Yield Data

USGS Gaging Station and ID Number	Maximum (tons/day)	Minimum (tons/day)	Mean (tons/day)	Period of Record
Piceance Creek below Rio Blanco, Colorado 09306007	2,670	0.04	60.2	1974 to 1982

Sediment Yield Data

USGS Gaging Station and ID Number	Maximum (tons/day)	Minimum (tons/day)	Mean (tons/day)	Period of Record
Piceance Creek below Ryan Gulch, Colorado 09306200	2,520	0.18	62.8	1974 to 1982
Piceance Creek at White River City, Colorado 09306222	2,470	0.01	107.4	1972 to 2002
Yellow Creek near Rangely Colorado 09306255	28,600	0	173.5	1974-1995
Douglas Creek above Rangely, Colorado 09306380	794	9.6	257.4	1994

Groundwater: Groundwater occurs in both alluvial and bedrock aquifer systems throughout the resource area. Alluvial aquifers are associated with streams, are often good sources of water, are recharged chiefly by streamflow, and often serve to recharge underlying bedrock aquifers. The alluvial aquifers range from 0 to 140 feet in depth. Depth to deeper groundwater aquifers varies from 350 to 450 feet below ground surface (bgs) throughout the resource area.

The Uinta-Animas and the Mesaverde aquifers are the principal bedrock aquifers (Robson and Banta 1995). The Uinta-Animas aquifer is primarily composed of Lower Tertiary rocks and overlies the Mesaverde aquifer, which is comprised of the Upper Cretaceous Mesaverde Group, and some adjacent Tertiary and Upper Cretaceous formations. In the Piceance Basin, the Uinta-Animas aquifer consists of the upper and lower aquifer systems. These consolidated rock aquifers are lower Tertiary Eocene in age, are separated by the Mahogany Zone of the Parachute Creek Member, and overlie the older Cretaceous Mesaverde Group. The upper aquifer system is about 700 feet thick and consists of several permeable zones in the Uinta Formation and the upper part of the Parachute Creek Member of the Green River Formation. Sub-aquifers of the Uinta Formations are silty sandstone and siltstone, while those of the Parachute Creek Member are fractured dolomite sandstone. The lower aquifer is about 900 feet thick and consists of a fractured dolomitic marlstone of part of the lower Parachute Creek Member.

In the Uinta Basin, the Uinta-Animas aquifer is present in water yielding beds of the Duchesne River and Uinta Formations, the Renegade Tongue of the Wasatch Formation, and the Douglas Creek Member of the Green River Formation. The thickness of the Uinta-Animas aquifer is as much as 2,000 feet thick in the central part of the Piceance Basin and 500 feet thick along the eastern margin of the Uinta Basin (Robson and Banta 1995).

The Mesaverde aquifer is present in rocks of the Mesaverde Group. The thickness of the Mesaverde aquifer is generally between 2,000 and 4,000 feet, but exceeds 7,000 feet locally in the eastern part of the Piceance Basin and is less than 1,000 feet near the margins of the basins (Robson and Banta 1995).

Groundwater recharge is primarily from snowmelt on high ground, which travels down through the upper aquifer system, the Mahogany Zone, and into the lower aquifer system. The groundwater then moves laterally and/or upward, discharging from both the upper and lower aquifer systems. Where the Parachute Creek Member of the Green River Formation, crops out in the Yellow and Piceance Creek watersheds, the groundwater discharges into alluvial aquifers, springs, or streams.

The chemical quality of groundwater is dependent on the mineral composition and hydrologic properties of the aquifer. Factors such as surface contact, porosity, and rate of water movement all influence water quality. Some sedimentary rocks contain large amounts of readily soluble minerals, and combined with low permeability, result in higher concentrations of dissolved minerals in groundwater. Alluvial aquifers typically contain high sulfate concentrations, the Uinta-Animas aquifer contains high sodium bicarbonate concentrations, and the Mesaverde aquifer contains high chloride concentrations (Taylor 1987).

Dissolved solid concentrations in the Uinta-Animas aquifer in the Piceance Basin range from 500 to more than 1,000 milligrams per liter (mg/l) in the upper part of the aquifer and can exceed 10,000 mg/l in the lower part of the aquifer. Dissolved solids typically range from 500 to 3,000 mg/l in the Uinta Basin. Water quality in the Mesaverde aquifer is extremely variable, and varies from less than 1,000 mg/l at the margins of the basins to more than 10,000 mg/l in the central part of the Piceance Basin to more than 35,000 mg/l in the central part of the Uinta Basin (Robson and Banta 1995).

Environmental Consequences of the Proposed Action: Many of the proposed treatments would directly benefit water quality in drainages downstream of burned areas. The most direct benefits to water quality would occur as a result of implementing suppression rehabilitation and emergency stabilization treatments. The primary actions within these categories of treatments that would prevent water quality deterioration are seeding and planting burned areas or area disturbed from fire suppression efforts, implementing both upland and in-channel erosion control treatments, and road drainage maintenance needs. These activities would result in a direct reduction or accelerated runoff, and yields of sediment and ash constituents, although seeding would not provide benefits until vegetation become established (up to 1-3 years post burn). Invasive weed actions would provide longer term benefits to water quality by promoting perennial plant establishment on burned areas, which are preferred to a high percentage of annual plants for water shed soil surface protection. Other emergency stabilization treatments that would have a more indirect benefit to water quality include: protective fences, burned area closures, and livestock management. These actions are often necessary to ensure the success of seeding and other treatments whose purpose is to stabilize a disturbed soil surface.

Environmental Consequences of the No Action Alternative: Treatments would be similar to the proposed action; however having the requirement to prepare an environmental assessment for each wildland fire would reduce the time available for assessing burn severity and resource values at risk. These time delays as a result of having to complete burn specific environmental assessments could end up creating less successful reclamation and rehabilitation efforts.

Mitigation: No additional mitigation is necessary.

Finding on the Public Land Health Standard for water quality: All of the recommended treatments in the proposed action are either beneficial in regard to protecting or improving water quality, or neutral, not affecting water quality. The most beneficial recommended treatments for water quality are suppression rehabilitation actions, and seeding, erosion control, and road drainage maintenance needs that would be performed as an emergency stabilization treatment. Collectively, these treatments are designed to protect the soil surface from accelerated erosion, restore stable runoff drainage from burned areas, or collect and retain sediment, ash and other suspended solids commonly transported in runoff waters and would improve our ability to meet the water quality Standard in the future.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: Riparian vegetation is generally associated with small, perennial streams, man-made reservoirs and stock-ponds holding year-round waters, and spring sources. Riparian plant communities or zones are typically narrow bands that follow stream courses and are directly influenced by live water associated with these streams or with subsurface moisture. On a per acre basis, these systems support much higher densities and greater diversity of species of both plants and animals than other rangeland plant communities. Because of the limited distribution and extreme importance of these systems, many riparian-dependent species of plants and animals are of special management concern.

There are approximately 408 miles of riparian systems and associated riparian vegetation in the project area. Of these, 71 miles are in properly functioning condition, 83 miles are functional at risk, and 130 miles are nonfunctioning. The remaining 123 miles have not yet been assessed. Riparian wetland areas are functioning properly when adequate vegetation, land form, or large woody debris is present to: dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. All of these characteristics need not be present for a system to be stable and functional, however, if a number of these characteristics are missing, it is likely that the system would be susceptible to degradation in the event of an adverse action.

Environmental Consequences of the Proposed Action: Riparian/wetland communities are typically well adapted to fire, particularly where fires are not severe and return intervals are of relatively longer duration. Riparian area trees, shrubs and herbaceous plants have a suckering or rhizomatous character which enables them to resprout from soil subsurface growing points. Given the moist substrate on which they occur plants in this habitat respond rapidly following fire. The exception would be where a fire occurs in a mature cottonwood stand with heavy understory fuel loading such as in a river bottom. It this instance, significant mortality of large cottonwood trees occurs and it may take many years (50-75) for the stand to return to its preburn structure and composition.

Environmental Consequences of the No Action Alternative: Adoption of the no action alternative could delay proposed rehabilitation measures both in riparian areas and their associated watersheds, resulting in increased potential for siltation of stream channels.

Mitigation: No heavy equipment will be used in sensitive channel areas.

Finding on the Public Land Health Standard for riparian systems:): The actions proposed in this plan, including revegetation, noxious and invasive plant suppression, and protection measures to enhance desirable plant cover and composition, would improve our ability to meet the riparian Standard in the future.

WILDERNESS

Affected Environment: The WRFO has approximately 81,000 acres of Wilderness Study Areas. The general standard for interim management is that lands under wilderness review must be managed so as not to impair their suitability for preservation as wilderness. This is referred to as the "nonimpairment" standard. This applies to all uses and activities except those specifically exempted from this standard by FLPMA (such as grandfathered uses). The two permitted exceptions to the "nonimpairment standard" which apply to fire suppression and rehabilitation are as follows:

(1) Emergencies such as suppression activities associated with wildfire or search and rescue operations;

(2) Reclamation activities designed to minimize impacts to wilderness values created by IMP violations and emergencies.

Environmental Consequences of the Proposed Action: Although exceptions are granted to adhere to the IMP, the preservation of wilderness values within a WSA is paramount and should be the primary consideration when evaluating any proposed action or use. The proposed action defines activities that may be inappropriate within WSAs.

Environmental Consequences of the No Action Alternative: As wildfire is natural, and natural fire is a part of wilderness, no impacts to wilderness character or suitability should occur.

Mitigation: It is recommended that any wildland fires or wildland fire use fires that occur within WSAs have a wilderness specialist on the rehabilitation team.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

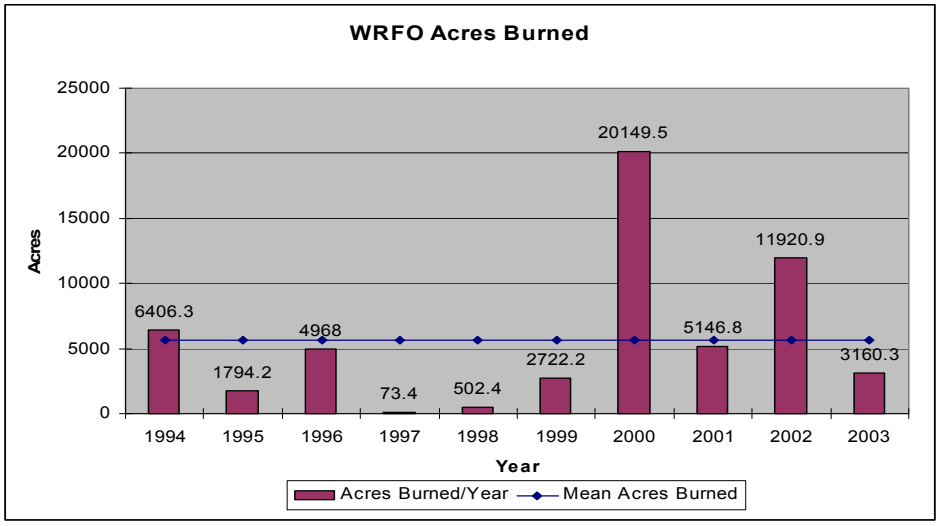
No prime and unique farmlands, or Wild and Scenic Rivers exist within the area affected by the proposed action. There are also no Native American religious or environmental justice concerns associated with the proposed action.

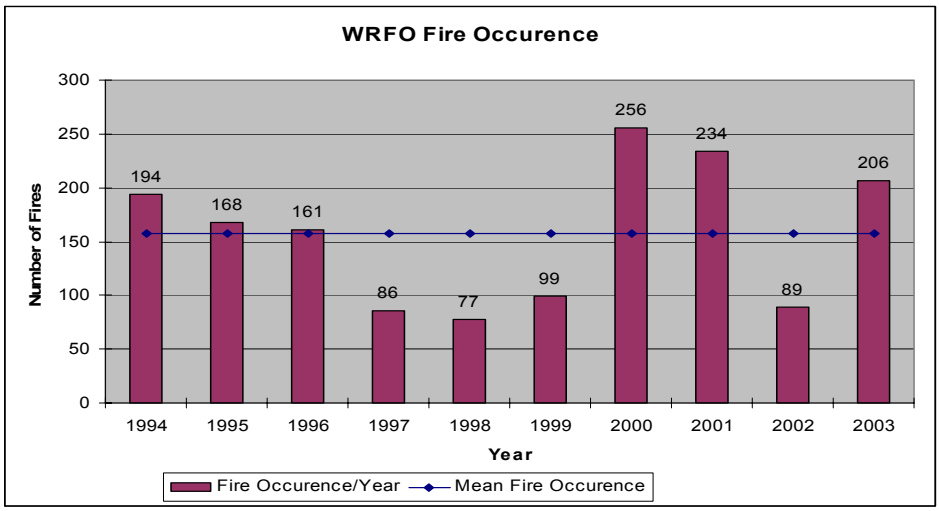
NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

FIRE MANAGEMENT

Affected Environment: The Northwest Colorado Fire Management unit ranks among the top three in annual fire starts within BLM fire management units nationally. The unit averages 349 fires per year, of which 157 occur within the WRFO area, consuming an average of 5684 acres /year over a ten-year period from 1994 to 2003. The average acres burned is somewhat skewed on the high end due to the ongoing drought which has gripped much of the state of Colorado and the western United States since 1998, resulting in the two worst fire years on record in 2000 and 2002. The ten-year fire history for the WRFO area is displayed in the graphs below.





The two main vegetation types predominantly affected by fire within the White River Resource Area are Pinyon-Juniper and sagebrush (mountain big sagebrush, Wyoming big sagebrush, and basin big sagebrush). These two communities comprised 52% and 47% of the total acres burned within the WRFO area from 1994 to 2003.

VEGETATION EFFECTED BY FIRE 94-03	Acres
Aspen	0.1
Douglas fir	70.7
Grass/Forb	99
Mixed Mountain Shrub	251.3
Pinyon-juniper woodland	24,500.2
Riparian	5.1
Big sagebrush	22,116.5
Salt Desert Shrub	4,980.3

Nearly every vegetation community occurring in the WRFO area is a fire-adapted system which experiences fire return intervals ranging from 15-30 years up to 300+ years. Much of the resource area receives 15 inches of precipitation or less and much of that moisture occurs as snow in the winter months. Fire adapted ecosystems and dry summer fuels combined with the frequent dry lightning storms that are common from mid May through mid September result in the frequent fire occurrence that is common for the resource area. Every fire management polygon with the exception of B8 Magnolia Oil and Gas has experienced multiple fire starts in the ten year period analyzed. The central Piceance Creek fire management polygons have experienced over one hundred fire starts in the time frame analyzed.

Fire Management Polygon	# of Fires	Acres
B1 Blue Mtn Sage Grouse	21	1505.7
B10 White River Floodplain	15	747.9
B2 Elk Springs O&G	20	10128.5
B3 Salt Desert Shrub	49	1106.3
B4 Crooked Wash/Indian Valley	120	3734.5
B5 Douglas Creek O&G	125	289.4
B6 Yellow Creek (Arch)	260	779.7
B7 Piceance Creek	22	72.1
B9 Meeker East	21	758.1
C1 Baking Powder/Pinyon Ridge	30	2357.8
C10 Fletcher	43	4621.9
C2 Spooky Mtn	39	506
C3 Spring Creek/Big Ridge	69	2693.8
C4 Rabbit Mtn/Dragon Trail	44	654.2
C5 Greasewood Creek	28	7756.3
C6 Lower Piceance Basin	227	2503.5
C7 Evacuation/Missouri Creeks	3	8.3
C8 Baxter/Douglas Pass	7	71
C9 Danforth Hills	12	113.3
D1 Blue Mtn/Dinosaur Bdy	21	17.1
D2 Bull Canyon/Skull Creek WSA	44	504.5

Fire Management Polygon	# of Fires	Acres
D3 Citadel/Gray Hills	47	414.8
D4 Little Hills	110	411.3
D5 Cathedral/Roan Plateau	184	10267.2

Environmental Consequences of the Proposed Action: The fire rehabilitation measures proposed would promote revegetation with native and locally adapted species which would preempt invasion and dominance of burned sites by cheatgrass. The proposed measures would also stabilize soils and prevent further environmental degradation post fire. Collectively, the rehabilitation measures proposed will result in lower fire suppression costs and less environmental degradation from fire over the long term by maintaining the natural longer duration fire return intervals.

Environmental Consequences of the No Action Alternative: Adoption of the no action alternative will result in greater long term costs associated with the resulting degradation due to increased potential for reburning of the site in the future, due to an increased fire return interval associated with wide scale cheatgrass infestation. There is little chance of successful revegetation associated with this alternative by natural means due to the competitive advantage that cheatgrass has in the post fire environment. Cheatgrass monocultures can be expected to burn every one to five years which will aid in the proliferation of this species and prevent native species from establishing and competitively excluding the invasive annual.

Mitigation: None

SOILS (includes a finding on Standard 1)

Affected Environment: Soils within the project area have been mapped and analyzed by the Natural Resources Conservation Service (NRCS) in four separate Order III soil surveys. These include Rio Blanco County Area (1982), Moffat County Area (2001), Rifle Area (1984) and Douglas Plateau Area (2003).

The semi-arid climate found in the WRFO area has affected soil development. Lack of moisture, cool nights, and infrequent high temperatures suppress vegetation growth and slow the chemical and biological processes needed for good soil development. In addition, geologic erosion has progressed too rapidly for soils to develop distinct deep horizons.

The White River ROD/RMP (1997) identifies soils that are fragile within the resource area. These soils occur on slopes of greater than 35% and exhibit the following criteria:

1) Areas rated as highly or severely erodable by wind or water, as described by NRCS area soil survey reports or as described by on-site inspections. The erodibility of a soil is determined by texture, particle size, structure, cohesion, and the level of ground cover. The magnitude of erosive forces is determined by the quantity of surface runoff and its associated energy (related to precipitation and slope characteristics) as well as wind factors.

2) Areas with slopes >35%, if they have one of the following soil characteristics: (a) a surface texture that is sand, loamy sand, very fine sandy loam, fine sandy loam, silty clay, or clay; (b) a depth to bedrock that is <20 inches; c) an erosion condition that is rated as poor; and (d) a K (erosion potential) factor >0.32.

Typical of semi-arid areas, plant growth is limited because soil moisture is in short supply for at least part of each growing season. The ability of soil to hold moisture is at least as important as nutrient availability. Finer textured soils (loams and clay loams) are more effective at holding moisture than coarser textured soils (sandy loams, rocky sandy loams, and, very rocky sandy loams) and will also hold onto the water more tightly, making it unavailable for plant growth. Soils on steep slopes will generate more runoff than gently sloping soils. Water is not available for plant growth from sites having high runoff events while bottomland soils in concave areas derive additional moisture during periods of runoff. These bottomland areas tend to have deeper, more strongly developed horizons, are more heavily leached, and are often more productive than the side slopes or uplands since they receive relatively more effective precipitation. Badland areas are a worst-case example of fragile soils. They are steep, sparsely vegetated, shallow, high in salt concentrations, and often fine textured.

Environmental Consequences of the Proposed Action: In general, the fire rehabilitation measures proposed would promote maximum desirable plant cover on the site which would act to maintain soils on site by reducing the potential for wind and water erosion. A uniform cover of desirable plant cover would also foster a uniform distribution of moisture and nutrients to the soils on site, enhancing the physical, chemical and biological properties of those soils.

Environmental Consequences of the No Action Alternative: Adoption of the no action alternative could have a long term negative impact on soils if revegetation of a burned area was delayed long enough such that cheatgrass could dominate the site to the exclusion of desirable perennial species.

Mitigation: None

Finding on the Public Land Health Standard for upland soils: The proposed action, through its effect on enhancing the cover, composition and production of desirable plants, is expected to have a beneficial impact upon soils. This impact will allow us to maintain or exceed the Standard for soils on the affected burn areas.

VEGETATION (includes a finding on Standard 3)

Affected Environment: As analyzed in detail in the 1999 White River Fire Management Plan (wr99099EA.doc), the principal vegetation types affected in a normal fire year would be pinyon-juniper woodland and big sagebrush in the B4-6, C3,6,&10, and D2-5 polygons.

Environmental Consequences of the Proposed Action: The pinyon-juniper woodland and big sagebrush (Wyoming and basin) dominant vegetation types within the B, C, and D polygons

are most at risk for invasion by the alien annual cheatgrass (*Bromus tectorum*). In all cases, a Normal Fire Year Rehabilitation Plan supplement would be prepared in which we would assess the risk of cheatgrass invasion/proliferation on the burned area. If cheatgrass was known to occur in the area prior to burning, we would plan on revegetating the burn with adapted species to preempt cheatgrass dominance of the site. Often, a wildfire event will provide a one time window of opportunity to establish desirable perennial species (in lieu of cheatgrass) if revegetation measures are promptly and effectively implemented.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* The actions proposed in this plan, including revegetation, noxious and invasive plant suppression, and protection measures to enhance desirable plant cover and composition, would improve our ability to meet the Standard in the future.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: Scattered throughout the Resource Area a number of small perennial and intermittent systems supporting simple invertebrate-based aquatic communities are those most commonly influenced by wildfire in contributing watersheds. More complex, vertebrate-based communities (i.e., fish, amphibians, beaver) are typically found in higher elevation headwater streams or in higher order systems at low elevations. These systems, identified in the White River Resource Area RMP, are not often directly involved with or substantively influenced by fire events.

Environmental Consequences of the Proposed Action: Supplemental seeding and livestock and weed control are intended to promote a strong perennial ground cover response that, by more effectively capturing and holding soils exposed by burns, contribute to the reduction of sediment contributed to downstream aquatic systems. Enhancing herbaceous plant density and cover and providing remedial physical controls would have a high likelihood of overcoming destabilizing influences of a burn and would aid in maintaining functional channels or complementing ongoing channel rejuvenation processes. Although the effects may be relatively minor in the context of the watershed, cumulative stabilization of upstream channels and contributing uplands would reduce the potential for channel instability caused by heavy short term and chronic long-term sediment imbalances in downstream reaches.

Environmental Consequences of the No Action Alternative: Occasional potential for channel instability caused by heavy short term and chronic long-term sediment contributions and imbalances in downstream reaches would persist.

Mitigation: The Normal Fire Rehabilitation Plan Supplements that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved habitat objectives (e.g., road-density limitations, alternate seed recommendations).

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): The proposed action would contribute to meeting the overall land health standards by reducing the risk of excessive sediment discharge into those intermittent and perennial channels supporting aquatic communities and, in doing so, helping to prevent unnecessary episodes of excessive deposition, channel widening, and subsequent deterioration of aquatic habitat conditions. Occasional lapses in timely implementation of erosion control measures attributable to the no-action alternative would interfere with, and may prolong successful and sustained meeting of applicable standards.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The majority of acreage burned in this Resource Area involves lower to mid-elevation pinyon-juniper woodlands and big sagebrush shrubland communities. Incremental wildfire effects and the successional processes involved with community rejuvenation are considered integral and vital in maintaining the long term utility and suitability of wildlife habitat at the landscape level.

These habitats can be broadly categorized as supporting important concentrations of deer and elk from September through May (various forms of winter range). Drastic reduction of cover and forage supplies sharply limits the utility of the burned acreage for wintering deer and elk during the earliest stages of vegetation succession. Although big game will use topographic relief as a means of effectively exploiting developing herbaceous growth, there is generally insufficient forage or cover to draw any substantive big game use during the first post-burn year when proposed reclamation activities would be most prevalent.

These woodlands and shrublands support a diverse assemblage of breeding nongame birds and mammals that are widely distributed at appropriate density in extensive woodland and shrub-steppe habitats. In the initial post-burn years, breeding densities and community composition are sharply depressed since nest substrate for nongame birds is typically limited to standing snags (e.g., cavity nesting species such as hairy woodpecker, mountain bluebird) and ground nesting species capable of using sparse herbaceous ground cover (e.g., western meadowlark, vesper and lark sparrow). Burned woodlands have essentially no utility as raptor nest substrate until mature woodland character is regained (i.e., 100+ years).

Environmental Consequences of the Proposed Action: The pertinent values influenced by emergency rehabilitation of these former woodlands as big game winter range and woodland raptor and non-game habitats involve the maintenance of long term site productivity rather than accelerating or favoring the redevelopment of any particular herbaceous or woody cover and forage properties.

The constant successional flux attending wildfire is considered temporary and tends to represent long-term equilibria unless the event involves more or less permanent community conversions (e.g., cheatgrass domination). The various elements of the proposed action support proper successional processes by promoting the reestablishment of native forms of herbaceous vegetation, preventing the proliferation of weedy introduced species, and maintaining soil productivity. Taken as a whole, the proposed action is fully consistent with appropriate long-term redevelopment of wildlife habitat values.

Supplemental application of seed that complements the abundance and form of native herbaceous ground cover would help ensure that sites more susceptible to the proliferation of cheatgrass and other annual weeds would be less prone to long-term site domination by these annuals. Strong post-fire response of herbaceous ground cover would reduce off-site transport of soil and gully formation in the long term and, in conjunction with the shorter term benefits of physical erosion-control structures, help maintain productivity of the site in providing forage and cover resources for resident wildlife in the future.

Reclamation activities are typically instituted immediately after the burn, or during the first fall/ winter or subsequent summer period. These timeframes avoid any substantive potential for disrupting important seasonal wildlife activities that have important reproductive or physiological consequences. Emphasis on reclaiming fire-control features, particularly trails originating from off-road vehicle use and control lines, would help minimize the subsequent use of these ways by recreational vehicles and help reduce further physiological and energetic demands (i.e., associated with animal avoidance and displacement) on big game during the winter and early spring period (e.g., winter maintenance and recovery; gestation) .

Environmental Consequences of the No Action Alternative: Delayed implementation of accepted restoration practices would occasionally forego opportunities to use the most effective techniques or means for countering, for example, accelerated erosion or the proliferation of exotic weeds on burned acreage. Because degradation of soil productivity and domination of native communities by exotic weeds involve long-term and essentially permanent modifications to native communities, wildlife forage and cover resources would be expected to undergo incremental, but progressive deterioration.

Mitigation: The Normal Fire Rehabilitation Plan Supplements that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved habitat objectives (e.g., road-density limitations, alternate seed recommendations).

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): At the broadest landscape level, the Resource Area meets the standard for animal communities. Each element of the proposed action is specifically intended to counter or control anthropogenic influences that retard or interrupt successional post-fire processes that are central to the redevelopment of vegetation communities that provide forage and cover components for all resident wildlife. By incorporating a series of regularly applied and proven methods to aid at-risk communities, the proposed action would be consistent with continued meeting of the standard.

Under the no-action alternative, identical restoration and reclamation techniques could be applied on a project-specific basis, but personnel or priority-conflicted delays in project evaluation or NEPA development would be expected to occasionally hinder timely and effective implementation of restorative measures and thereby progressively increase acreage failing to meet the standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Forest Management		X	
Geology and Minerals	X		
Hydrology/Water Rights			X
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations			X
Recreation		X	
Socio-Economics		X	
Visual Resources			X
Wild Horses			X

FOREST MANAGEMENT

Affected Environment: Pinyon /juniper woodlands are found on a variety of slopes and exposures and make up approximately 60% of the resource area. Over the 10 year period 1994 to 2003, approximately 4% of the resource areas pinyon/juniper woodlands were removed by fire. Fires within the aspen community have been rare as these stands are fire resistant. Fires within the Douglas-fir/spruce-fir forests have been rare although fire in these stands is expected to remove the entire stand. These Douglas-fir/spruce-fir stands are generally found on steep slopes with North and East aspects.

Environmental Consequences of the Proposed Action: The treatments and seed mixes used for fire rehabilitation have been developed over the years, and have been shown to be affective in stabilizing soils within the forest and woodland associations. Tree planting would decrease the recovery time within forest and woodland associations, but is not considered in this document because of the site specific nature of tree planting. In Douglas-fir and spruce-fir

forests the option of planting trees would be considered a higher priority than pinyon/juniper woodlands.

Environmental Consequences of the No Action Alternative: There would be no change in the present situation. Fire reclamation plans would be completed on a case-by-case basis, which has in the past delayed reclamation.

Mitigation: If planting of trees was determined to be required for development of the site, a site-specific environmental assessment would be prepared.

HYDROLOGY AND WATER RIGHTS

Affected Environment: A total of 839 springs, seeps and wells have been identified and inventoried within the resource area. These waters are important for satisfying livestock, wildlife, riparian, fire suppression and recreation uses on BLM lands. The table below list those water rights secured by the BLM to date. The WRFO will continue to claim water rights according to state law. Most of these claims will be stock water out of springs.

Type of Water Right	Number Secured
Reserved right on springs and water holes	131
Appropriative right on wells, reservoirs and stream segments	240
Absolute/conditional right on springs and seeps	376
Total	**747**

Environmental Consequences of the Proposed Action: There should be no impacts to water rights as a result of the proposed action.

Environmental Consequences of the No Action Alternative: There should be no impacts to water rights as a result of the no-action.

Mitigation: No additional mitigation is necessary.

PALEONTOLOGY

Affected Environment: The White River ROD/RMP lists ten exposed formations that are considered to be Condition I formations. These are formations that are known to produce scientifically important plant, invertebrate and vertebrate fossil resources. Some of the more noteworthy fossils include dinosaurs and some early mammals found only in North America. Fossils are found in surface exposures of the Condition I formations which may be on horizontal to vertical or even overhanging exposures of the formation.

Environmental Consequences of the Proposed Action: In general the proposed rehabilitation activities should not impact fossil resources unless it becomes necessary, for some reason, to excavate into the underlying bedrock, or exposed outcrops of bedrock, to re-contour fire control lines or restore roads and trails to pre-fire conditions.

Environmental Consequences of the No Action Alternative: If no rehabilitation occurs there is the possibility that fossil resources could be buried by sedimentation activity as soil upslope from localities washes down hill. Unless the surface exposure has been fractured by intense heat from the fire there is little likelihood that resources would be washed away due to sheet erosion or flooding.

Mitigation: If it becomes necessary to excavate into the underlying bedrock of one of the ten Condition I formations listed in the White River ROD/RMP a paleontological monitor shall be present.

RANGELAND MANAGEMENT

Affected Environment: Livestock grazing is managed and permitted in all areas where fire rehabilitation measures are proposed. In most instances, fire rehabilitation measures would occur on ranges licensed for spring, fall and/or winter grazing use. These are the typical season(s) of use for big sagebrush and pinyon- juniper dominated rangelands which also have the highest probability of burning in a wildfire event to be subsequently treated under the proposed action.

Environmental Consequences of the Proposed Action: In the short term, there would be a temporary loss of forage on the fire rehabilitation site while it is deferred from grazing to allow for successful revegetation. This loss would be offset by a long term increase in the quantity and quality of forage available for livestock as a result of successful emergency fire rehabilitation measures.

Historically, grazing preference on allotments has not been adjusted upward as a result of either prescribed or substantial wildfire burns. Under the proposed action, burns would not be assessed for an increase in grazing preference on the allotment on which they occurred because such fires merely compensate for the rate of forage loss which continues to occur as a result of big sagebrush and juniper encroachment and other land use and management practices particularly, oil and gas exploration and development.. Relative to this, there would be no significant difference between the No Action alternative and the Proposed Action.

Environmental Consequences of the No Action Alternative: The impacts under this alternative would be similar to those under the proposed action in the short term. The principal difference being, that without a Normal Fire Year Rehabilitation Plan in place, a delay in revegetation could occur, this could in turn compromise range plant composition and productivity over the long term.

Mitigation: None

REALTY AUTHORIZATIONS

Affected Environment: This is a broad area that cannot be defined as to individual rights-of-way.

Environmental Consequences of the Proposed Action: The proposed action could affect existing facilities when rehab work is being undertaken. The rights-of-way encountered during this operation need to be noted and precautions need to be taken to protect the existing facilities or avoid impacting them. Any excavations in the area of a known right-of-way need to ensure the safety of the public and the personnel working in that area.

Environmental Consequences of the No Action Alternative: Under to no action alternative, there would not be any impacts.

Mitigation: Any excavations in the area of utility lines such as power lines and pipelines, the Colorado "One Call" procedure needs to be implemented (800-922-1987).

VISUAL RESOURCES

Affected Environment: VRM classifications correspond to the management objectives in an area and indicate the level of acceptable change that could occur within the class. Class I is the most restrictive while class IV is the least restrictive.

The following is a list of the number of acres within each class:

Class I	39,390 acres
Class II	412,250 acres
Class III	861,680 acres
Class IV	146,100 acres

Environmental Consequences of the Proposed Action: Within each classification, management actions or projects should repeat the basic elements of line, form, color, and texture to help them maintain the VRM class or level of change to the landscape. If management actions do not repeat the basic elements, visual impacts may occur.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

WILD HORSES

Affected Environment: Wild horses are managed on 190,130 acres (the Piceance-East Douglas Herd Management Area) where fire rehabilitation measures are being proposed. The majority of acreage identified for treatment in this proposal consists of lower elevation lands that correspond to wild horse late fall, winter and early spring ranges.

Environmental Consequences of the Proposed Action: In all cases, impacts resulting from fire rehabilitation would be localized and short-term. Individual wild horse bands could be negatively affected by increased human presence and consequent human disturbance associated with the use of motorized vehicles and equipment. Again, this disturbance is expected to be localized, and short-term. Horses would experience temporary decreased forage availability in areas where fencing is constructed to allow successful revegetation of the burned areas. The decrease in forage availability would be offset by the subsequent increase in desirable forage expected to establish in the treated locations.

Environmental Consequences of the No Action Alternative: The impacts under this alternative would be similar to those under the proposed action in the short term.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY:

Implementation of the proposed action would have a long term positive cumulative impact by facilitating post fire rehabilitation measures. Aggressive rehabilitation measures including various methods of seeding would act to preempt the potential proliferation of cheatgrass resulting in a cumulative enhancement of the natural environment.

REFERENCES CITED:

Robson, S. and E. Banta, 1995. Ground Water Atlas of the United States. Arizona, Colorado, New Mexico, and Utah: US Geological Survey Hydrologic Investigations Atlas HA-730-C.

Taylor, O. 1987. Hydrologic Systems of the Piceance Basin. Oil Shale, Water Resources, and Valuable Minerals of the Piceance Basin, Colorado: The Challenge and Choices of Development. US Department of Interior US Geological Survey Professional Paper 1310. US Government Printing Office. Washington, D.C. 1987.

Tobin, R. 1987. Water Quality in the Piceance Basin, in Taylor J., ed., Oil Shale, Water Resources, and Valuable Minerals of the Piceance Basin, Colorado: The Challenge and Choices of Development. US Department of Interior US Geological Survey Professional Paper 1310. US Government Printing Office. Washington, D.C. 1987.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Carol Hollowed	Planning and Environmental Coordinator	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archeologist	Cultural Resources Paleontological Resources
Mark Hafkenschiel	Rangeland Management Specialist	Fire Rehabilitation, Invasive, Non-Native Species, Soils, Vegetation, Rangeland Management, Wetlands and Riparian Zones
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Carol Hollowed	Planning and Environmental Coordinator	Water Quality, Surface and Ground Hydrology and Water Rights
Chris Ham	Outdoor Recreation Planner	Wilderness
Ed Hollowed	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Chris Ham	Outdoor Recreation Planner	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Appendix A Seed Mixes from the White River ROD/RMP July 1997

Table B-2. Native Seed Mixes

Seed Mix #	Species (Variety)	Lbs. PLS per Acre	Ecological Sites
1	Western wheatgrass (Arriba, Rosanna) Streambank wheatgrass (Sodar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana, Rincon) Alternates: Winterfat, shadscale, globemallow	3 2 2 2	Alkaline Slopes, Clayey Foothills, Clayey Slopes, Claypan, Mountain Shale
2	Western wheatgrass (Rosanna, Arriba) Indian ricegrass (Nezpar, Rimrock) Bluebunch wheatgrass (Whitmar) Thickspike wheatgrass (Critana) Green needlegrass (Lodorm) Scarlet globemallow Alternates: Fourwing saltbush, Utah sweetvetch, balsamroot, Needle and thread, junegrass, squirreltail	2 1 2 2 1 0.5	Deep Loam, Loamy 10"-14", Loamy Breaks, Loamy Slopes, Rolling Loam, Valley Bench
3	Western wheatgrass (Rosanna) Bluebunch wheatgrass (Secar, Whitmar) Thickspike wheatgrass (Critana) Indian ricegrass (Rimrock,Nezpar) Fourwing saltbush (Wytana, Rincon) Utah sweetvetch Alternates: Needle and thread, globemallow, junegrass, squirreltail	2 2 2 1 1 1	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)
4	Western wheatgrass (Rosanna, Arriba) Needle and thread Thickspike wheatgrass (Critana) Indian ricegrass (Nezpar) Sand dropseed Alternates: Fourwing saltbush	2 2 2 2 1	Sandy Bench, Sandy Foothills, Sand Hills
5	Basin Wildrye (Magnar, Trailhead) Western wheatgrass (Rosanna, Arriba) Bluebunch wheatgrass (Secar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana) Alternatives: Utah sweetvetch, globemallow	2 3 1 2 1	Foothill Swale, Sandy Swale, Swale Meadow
6	Bluebunch wheatgrass (Secar) Slender wheatgrass (Primar) Big bluegrass (Sherman) Canby bluegrass (Canbar) Mountain brome (Bromar) Alternates: Blue flax[1/], Rocky Mountain penstemon[2/], balsamroot	2 2 1 1 2	Alpine Meadow, Alpine Slopes, Aspen Woodlands, Brushy Loam, Deep Clay Loam, Douglas-fir Woodland, Loamy Park, Mountain Loam, Mountain Meadows, Mountain Swale, Shallow Subalpine, Spruce-fir Woodland, Subalpine Loam

Seed Mix #	Species (Variety)	Lbs. PLS per Acre	Ecological Sites
7	Thickspike wheatgrass (Critana) Slender wheatgrass (Primar) Beardless wheatgrass (Whitmar) Streambank wheatgrass (Sodar) Canby bluegrass (Canbar)	2 2 2 1 1	Dry Exposure, Dry Mountain Loam, Limestone Hills, Rocky Loam, Stony Loam

[1/]Appar
2/Bandera

Table B-1. Standard Seed Mixes,

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Ecological sites
1	Siberian wheatgrass (P27) Russian wildrye (Bozoisky) Crested wheatgrass (Hycrest) Alternates: Yellow sweetclover, Fourwing saltbush, Nutall saltbush, Winterfat, Annual Sunflower, Western wheatgrass	3 2 3	Alkaline Uplands, Badlands, Clayey 7"-9", Clayey Salt Desert, Cold Desert Breaks, Cold Desert Overflow, Gravelly 7"-9", Limey Cold Desert, Loamy 7"-9", Loamy Cold Desert, Loamy Salt Desert, Saline Lowland, Salt Desert Breaks, Salt Flats, Salt Meadow Sands 7"-9", Sandy 7"-9", Sandy Cold Desert, Sandy Salt Desert, Shale 7"-9", Shale/Sands Complex, Shallow Loamy, Shallow Sandy, Shallow Slopes, Silty Salt Desert, Silty Swale, Steep Slopes
2	Western wheatgrass (Arriba) Pubescent wheatgrass (Luna) Russian wildrye (Bozoisky) Crested wheatgrass (Fairway/Ephraim) Yellow sweetclover (Madrid) Fourwing saltbush (Wytana/Rincon) Alternates: Winterfat	3 2 2 2 0.5 2	Alkaline Slopes, Clayey Foothills, Clayey Slopes, Claypan, Mountain Shale
3	Pubescent wheatgrass (Luna) Western wheatgrass (Rosanna) Crested wheatgrass (Ephraim) Indian ricegrass (Nezpar, Rimrock) Orchardgrass (Paiute) Yellow sweetclover (Madrid) Alternates: Fourwing saltbush, Intermediate wheatgrass, Cicer Milkvetch (Monarch)	4 2 1 1 1 0.5	Deep Loam, Loamy 10"-14", Loamy Breaks, Loamy Slopes, Rolling Loam, Valley Bench
4	Western wheatgrass (Rosanna) Pubescent wheatgrass (Luna) Crested wheatgrass (Nordan) Orchardgrass (Paiute) Indian ricegrass (Nezpar) Fourwing saltbush (Wytana)	2 3 2 1 1 1	Gravelly 10"-14", Pinyon/Juniper Woodland, Stony Foothills, 147 (Mountain Mahogany)

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Ecological sites
	Alternates: Alfalfa (Nomad or Ladak)		
5	Pubescent wheatgrass (Luna) Crested wheatgrass (Fairway) Western wheatgrass (Rosanna) Indian ricegrass (Nezpar, Rimrock) Alternates: Yellow sweetclover, Alfalfa (Nomad or Ladak), Fourwing saltbush	4 2 3 2	Sandy Bench, Sandy Foothills, Sand Hills
6	Basin wildrye (Magnar, Trailhead) Western wheatgrass (Rosanna) Pubescent wheatgrass (Luna) Orchardgrass (Paiute) Fourwing saltbush (Wytana) Alternates: Crested wheatgrass, Cicer milkvetch (Monarch), Yellow sweetclover	2 3 3 1 1	Foothill Swale, Sandy Swale, Swale Meadow
7	Big bluegrass (Sherman) Intermediate wheatgrass (Greenar) Smooth brome (Manchar) Orchard grass (Latar) Cicer milkvetch (Monarch) Alternates: Small burnet, Pubescent wheatgrass, Mountain brome, Alfalfa (Nomad or Ladak)	2 4 3 1 0.5	Alpine Meadow, Alpine Slopes, Aspen Woodlands, Brushy Loam, Deep Clay Loam, Douglas-fir Woodland, Loamy Park, Mountain Loam, Mountain Meadows, Mountain Swale, Shallow Subalpine, Spruce-fir Woodland, Subalpine Loam
8	Smooth brome (Manchar) Pubescent wheatgrass (Luna) Crested wheatgrass (Nordan) Cicer milkvetch (Monarch) Alternates: Alfalfa, Russian wildrye (Vinall), Beardless wheatgrass (Whitmar)	3 3 2 1	Dry Exposure, Dry Mountain Loam, Limestone Hills, Rocky Loam, Stony Loam

Appendix B Sample Format for NFRP Supplement

I. ENVIRONMENTAL ASSESSMENT DECISIONS REPORT (Decision Record Rationale)

II. LIST OF PREPARERS/REVIEWERS

III. PROJECT AREA DESCRIPTION

- A. FIRE DESCRIPTION
- B. VEGETATION & SOIL DESCRIPTION

IV. PROPOSED PROJECT TREATMENTS

- A. REVEGETATION
  1. SPECIES & RATE OF APPLICATION
  2. ACRES
  3. METHOD
  4. TIMING
- B. STRUCTURES
  1. NEW FENCE
  2. PROTECTIVE FENCE REPAIR
  3. CATTLE GUARDS
  4. WATER DEVELOPMENTS (FUNDING FROM OTHER SOURCES)
  5. RECREATION FACILITIES (FUNDED FROM OTHER SOURCES)
  6. OTHER (FUNDED FROM OTHER SOURCES)
- C. EROSION CONTROL TREATMENTS
  1. CHECK DAMS
  2. RIPPING, CONTOUR FURROWING/FELLING, ETC.
  3. OTHER
- D. SITE PREPARATION
  1. CHEMICAL
  2. MECHANICAL

V. CONSIDERATION OF CRITICAL ELEMENTS

- A. AIR QUALITY
- B. CULTURAL/PALEONTOLOGY RESOURCES
- C. HAZARDOUS SUBSTANCES OR SOLID WASTE
- D. NATIVE AMERICAN

E. NOXIOUS WEEDS
F. PRIME & UNIQUE FARMLANDS
G. SPECIAL MANAGEMENT AREAS
H. SPECIAL STATUS SPECIES
I. VISUAL RESOURCES
J. WATER QUALITY
K. WETLANDS/RIPARIAN, FLOOD PLAINS
L. WILD & SCENIC RIVERS
M. WILDERNESS/WSAs
N. NEW REQUIREMENTS

VI. CONSULTATION AND COORDINATION

VII. MONITORING

VIII ANNUAL WORK PLAN SECTION

IX. PROJECT AND TREATMENT MAPS

X. COST/RISK ASSESSMENT

XI. NATIVE/NON-NATIVE WORKSHEET (consider in NFRP and attach form to EFRP)

XII. ESR PROJECT SUMMARY

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-038-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: This environmental assessment which analyzed the environmental effects of the proposed action has been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to implement the Normal Year Fire Rehabilitation Plan as described in the proposed action. The proposed action serves to stabilize and rehabilitate resources damaged by wild fire on lands managed by the White River Field Office. The decision to implement the proposed action does not result in any undue or unnecessary environmental degradation and is in the conformance with the Colorado Public Land health Standards, and the White River Resource Management Plan.

MITIGATION MEASURES:

1. Treatments should be done concurrent with the proposed action and a suitable method for the affected topography. Off-road vehicle use, and the use of retardant, would be limited in use as identified in the polygon descriptions in the Fire Management Plan 1999.

2. In those areas where archaeological assessments are carried out the mitigation is already built into the proposed action. Additional mitigation will be determined based on the field assessments.

3. In areas where field assessments are not part of the initial plan, the following mitigation will apply:

4. The operator (BLM or its contractor) is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

    - whether the materials appear eligible for the National Register of Historic Places

- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

5. Pursuant to 43 CFR 10.4(g) the holder of this authorization (BLM or its contractor) must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

6. Post rehabilitation monitoring for a minimum of three to five years followed by eradication if noxious weeds are detected.

7. The Normal Fire Rehabilitation Plan Supplements that would be prepared for each fire event would be sufficient to address and incorporate any specialized and site-specific reclamation measures needed to implement appropriate RMP-approved habitat objectives (e.g., alternate seed, livestock management, or protective fencing recommendations).

8. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

9. No heavy equipment will be used in sensitive channel areas.

10. It is recommended that any wildland fires or wildland fire use fires that occur within WSAs have a wilderness specialist on the rehabilitation team.

11. If planting of trees was determined to be required for development of the site, a site-specific environmental assessment would be prepared.

12. If it becomes necessary to excavate into the underlying bedrock of one of the ten Condition I formations listed in the White River ROD/RMP a paleontological monitor shall be present.

13. Any excavations in the area of utility lines such as power lines and pipelines, the Colorado "One Call" procedure needs to be implemented (800-922-1987).

COMPLIANCE/MONITORING: Post rehabilitation monitoring and compliance will be conducted by the Fire Rehabilitation Coordinator.

NAME OF PREPARER: Mark Hafkenschiel

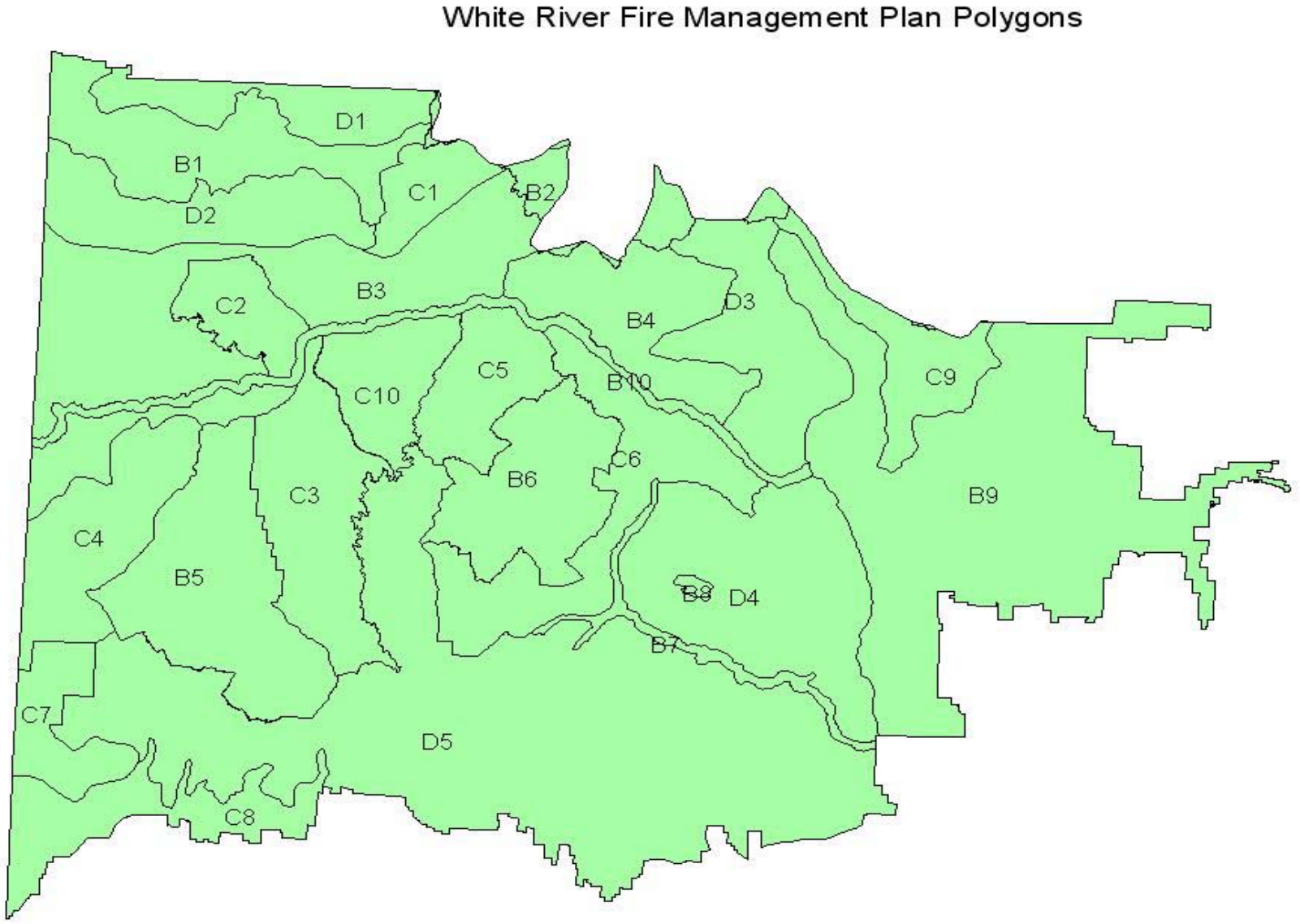
NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: Kent C. Walter
Field Manager

DATE SIGNED: 4/28/05

ATTACHMENTS: White River Fire Management Plan Polygons

CO-110-2005-038-EA 41


White River Fire Management Plan Polygons
D1
B1
C1
B2
D2
B3
C2
B4
D3
C5
B10
C9
C10
C6
B6
B9
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B7
C7
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